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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/825,225	04/03/2001	Larry D. Barto	M-7511 US	9817

7590

01/21/2003

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EXAMINER

FRANK, ELLIOT L

ART UNIT

PAPER NUMBER

2125

DATE MAILED: 01/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/825,225

Applicant(s)

BARTO ET AL.

Examiner

Elliot L. Frank

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

- ✓ 1. The disclosure is objected to because of the following informalities:
- ✓ a. Page 8, line 14: The item number "260" is listed twice.
 - b. Page 12, line 20 – Page 14, line 6
Page 27, line 2
- ✓ Page 28, line 8: The specification references figure 5, which is not an included figure in the application. Figures 5a and 5b are in the application.
- Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
- ✓ a. Claims 1,5,8,14,20 and 24 recite the limitation "the manufacturing line" in the last line of each claim. There is insufficient antecedent basis for this limitation in the claim.
 - b. The balance of the claims depend from the indicated independent claims, and
✓ are rejected for containing the same deficiency.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Weaver et al. (USPN 5,446,671).

The limitations of the aforementioned claims, and the relevant citations in Weaver et al., are as follows:

1. An automated system that monitors work-in-process ("WIP") in a manufacturing facility (column 1, lines 8-13), comprising:
 - a software object that determines when an evaluation cycle should be invoked;
 - and
 - a recommendation wakeup listener object that performs the evaluation cycle (column 4, line 53-column 5, lines 5), the recommendation wakeup listener object further including:
 - a software object that identifies a bottleneck workstation;
 - a software object that calculates a WIP value representing the amount of work approaching the bottleneck workstation;
 - a software object that determines whether the WIP value is projected to fall below a control limit during an evaluation period; and a software object that

Art Unit: 2125

recommends, if the WIP value is projected to fall below the control limit during the evaluation period, that a selected amount of additional work be released into the manufacturing line (column 1, line 44-column 2, line 26).

2. The automated system recited in Claim 1, wherein the work approaching the bottleneck workstation comprises one or more product types (column 3, lines 3-25).

3. The automated system recited in Claim 1, wherein the additional work comprises one or more product types (column 2, lines 40-52).

4. The automated system recited in Claim 1 further comprises: a software object that selects one or more product types for the selected amount of additional work (column 5, lines 6-50).

10. The method recited in Claim 8, wherein: providing a software object to identify a bottleneck workstation further comprises employing a software object to identify one or more of a plurality of bottleneck workstations (column 5, lines 6-15, wherein a resource query takes place to determine the state of the machines in the system).

11. The method recited in Claim 8, wherein providing a software object to calculate a WIP value representing the amount of work approaching the bottleneck workstation further comprises employing a software object to calculate a WIP value for each of a plurality of bottleneck workstations, wherein each of the WIP values represents work approaching the corresponding bottleneck workstation (column 1, line 44-column 2, line 26).

12. The method recited in Claim 8 wherein: providing a software object to determine whether the WIP value is projected to fall below a control limit during an evaluation period further comprises employing a software object to determine whether any of a plurality of WIP values is projected to fall below the control limit during the evaluation period (column 5, line 51-column 6, line 11).

13. The method recited in Claim 8, wherein: providing a software object to recommend, if the WIP value is projected to fall below the control limit during the evaluation period, that a selected amount of additional work be selected for the bottleneck workstation further comprises employing a software object to recommend, if the WIP value associated with each of a plurality of bottleneck workstations is projected to fall below the control limit during the evaluation period, that a selected amount of additional work be released into the manufacturing line (column 5, line 51-column 6, line 11).

Method claims 8 and 14 and facility claim 20 have the same functional limitations as claim 1, and are therefore anticipated by the same citations in Weaver et al.

System claim 5 and facility claim 24 have the same functional limitations as claim 1 as it is applied to multiple bottleneck machines. Weaver et al. anticipates the occurrence of multiple bottlenecks at column 2, lines 28-62.

System claim 7, method claim 16, and facility claims 21 and 26 have the same functional limitations as claim 2, and are therefore anticipated by the same citations in Weaver et al.

Art Unit: 2125

System claim 6, method claims 9 and 15, and facility claims 22 and 25 have the same functional limitations as claim 3, and are therefore anticipated by the same citations in Weaver et al.

Facility claim 23 has the same functional limitations as claim 4, and is therefore anticipated by the same citations in Weaver et al.

Method claims 17, 18 and 19 have the same functional limitations as claims 11, 12 and 13 respectively, and are therefore anticipated by the same citations in Weaver et al.

Claims 1-26 are read in entirety in Weaver et al.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 2002/0103559 A1 – Gartstein – Optimizing system

USPN 5,748,478 A – Pan et al. – Production management

USPN 5,946,661 A – Rothschild et al. – Bottleneck management

USPN 6,144,893 A – Van Der Vegt et al. – Bottleneck management

USPN 6,263,253 B1 – Yang et al. – Bottleneck management

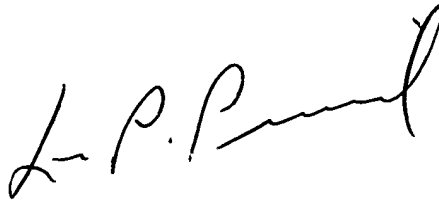
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elliot L Frank whose telephone number is (703) 305-5442. The examiner can normally be reached on M-F 7-4:30, 1st Friday off.

Art Unit: 2125

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P Picard can be reached on (703) 308-0538. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-5484.

ELF
January 15, 2003

A handwritten signature in black ink, appearing to read "L. P. Picard", written in a cursive style.

LEO PICARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100